

CLAIMS

What is claimed is:

1. A mechanism for ejecting a battery pack, comprising:
 - a frame;
 - a cavity in said frame for receiving a battery pack;
 - a receiving member adjacent said cavity, said receiving member meshing with a member on the battery pack to hold the battery pack in the cavity;
 - a biasing member in said cavity adjacent said receiving member, said biasing member for ejecting said battery pack from said ejecting mechanism; and
 - a member for retaining said biasing member in said cavity, said member guiding the portion of the battery pack meshing with said receiving member into contact with said biasing member such that when the battery pack is locked onto said frame, said biasing member is in a compressed condition and when the battery pack is in an unlocked condition, said biasing member ejects the battery pack from the frame.
2. The ejector mechanism according to Claim 1, wherein said cavity defined by a pair of opposing side walls and an end wall adjoining said opposing side walls.

3. The ejector mechanism according to Claim 2, wherein said receiving member including a pair of extending rails on each side wall, said rails opposing one another.

4. The ejector mechanism according to Claim 3, wherein channels are formed adjacent said side walls and between said rails and frame for receiving mating rails on the battery pack.

5. The ejector mechanism according to Claim 4, wherein said biasing retaining member being adjacent said channel.

6. The ejector mechanism according to Claim 5, wherein said biasing retaining member being a tab extending from said side wall of said frame.

7. The ejector mechanism according to Claim 1, wherein said biasing member including a pair of helical springs.

8. The ejector mechanism according to Claim 6, wherein said biasing member extending from said end wall and aligned with said channel.

9. A power tool, comprising:

a housing;

a motor in said housing;

an output coupled with said motor;

an activation member for activating said motor;

a mechanism on said housing for receiving a battery pack

including:

a frame;

a cavity in said frame for receiving a battery pack;

a receiving member adjacent said cavity, said receiving member meshing with a member on the battery pack to hold the battery pack in the cavity;

a biasing member in said cavity adjacent said receiving member, said biasing member for ejecting said battery pack from said ejecting mechanism;

a member for retaining said biasing member in said cavity, said member guiding the portion of the battery pack meshing with said receiving member into contact with said biasing member such that when the battery pack is locked onto said frame, said biasing member is in a compressed condition and when the battery pack is in an unlocked condition, said biasing member ejects the battery pack from the frame; and

a battery pack.

10. The power tool according to Claim 9, wherein said cavity defined by a pair of opposing side walls and an end wall adjoining said opposing side walls.

11. The power tool according to Claim 10, wherein said receiving member including a pair of extending rails on each side wall, said rails opposing one another.

12. The power tool according to Claim 11, wherein channels are formed adjacent said side walls and between said rails and frame for receiving mating rails on the battery pack.

13. The power tool according to Claim 12, wherein said biasing retaining member being adjacent said channel.

14. The power tool according to Claim 13, wherein said biasing retaining member being a tab extending from said side wall of said frame.

15. The power tool according to Claim 9, wherein said biasing member including a pair of helical springs.

16. The power tool according to Claim 14, wherein said biasing member extending from said end wall and aligned with said channel.

17. The power tool according to Claim 9, wherein said battery pack including a pair of rails mating in said channels.

18. The power tool according to Claim 17, wherein said battery pack rails including an upper portion, lower portion and a channel between said upper and lower portions.

19. The power tool according to Claim 18, wherein said extending tabs extend into said channels of said battery pack rails.

20. The power tool according to Claim 18, wherein said rails include end faces that abut said helical springs.

21. The power tool according to Claim 21, wherein said helical springs partially eject said battery pack.

22. The power tool according to Claim 17, wherein said battery rails slide in said channels and said frame rails suspend said battery pack from said tool housing.